

REMARKS/ARGUMENTS

Claims 1-95 stand rejected in the outstanding Official Action. Claims 1, 7, 9-11, 13, 15, 19, 21-23, 25-37, 43, 45-47, 49, 55, 57-59, 61, 68-70, 72, 78, 80-82, 84, 90 and 92-94 have been amended and therefore claims 1-95 remain in this application.

The Examiner's indication of acceptance of Applicant's originally submitted formal drawings is very much appreciated.

Claim 15 is objected to as possibly being misdependent. The Examiner is correct in his analysis and claim 15 has been amended to depend directly from claim 13 as originally intended.

Claims 1-6, 8-18, 20-30, 32-42, 44-54, 56-77, 79-89 and 91-95 stand rejected under 35 USC §102 as being anticipated by Hill (U.S. Patent 6,732,242). The Court of Appeals for the Federal Circuit has noted in the case of *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) that "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Applicant has amended claim 1 and other independent claims to positively recite that the "communication bus" is a "**common communication bus**" and that it provides a "plurality of communication paths" between the recited master device, a first slave device and at least one further slave device. These limitations are set out in Applicant's specification in Figure 1 which specifically mentions the common bus in the description on page 8, lines 1-12. Figure 1, of course, shows the bus providing a common communication path between a plurality of slave devices and a master device.

Applicant's original independent claims 1, 13, 25, 37, 49, 61, 72 and 84 specify that the master device generates a transaction identifier and that the **transaction identifier** has "a master identifier portion and a priority request portion."

Thus, in order to anticipate Applicant's independent claims (and of course claims dependent thereon), it is necessary that the Hill patent disclose the two above-noted structures or structural interrelationships, i.e., a common communication bus providing a "plurality of communication paths" and a "transaction identifier having a master identifier portion and a priority request portion."

As will be seen, the Hill patent fails to disclose either of these limitations and therefore does not support any rejection of the independent claims or claims dependent thereon under the provisions of 35 USC §102 or even under 35 USC §103. It is noted that the burden is on the Examiner to establish how or where each of the claimed elements or claimed interrelationships is shown or rendered obvious in the cited prior art reference.

The Examiner suggests that processor 102 of the Hill reference is a "master device" and that memory 120, also in Figure 1 of Hill, is a "slave device." The Examiner then contends that external bus 118 is the "communication bus." All independent claims now specify a master device and a "first slave device" and "at least one further slave device." The communication bus is now recited as a "common communication bus providing a plurality of communication paths between said master device, said first slave device and at least one further slave device." Thus, the Hill patent, if memory 120 is the "first slave device," fails to teach "at least one further slave device" or a "common communication bus" for providing a communication path between the

master device (alleged by the Examiner to be item 102) and the first slave device and the at least one further slave device. Thus, Hill fails to teach this aspect of Applicant's independent claim 1.

The Examiner also contends on page 3, first full paragraph, that Hill teaches a transaction identifier having the required "master identifier portion and a priority request portion." While the Examiner cites Figure 5 of the Hill patent and the accompanying discussion at column 9, lines 13-22, the Examiner's understanding is believed erroneous.

Figure 5 of the Hill reference discloses that each entry within a number of general-purpose queue registers comprises an address field 518, a status field 520, a request type field 522 and a priority field 524. There is no indication that it teaches a "master identifier portion." Should the Examiner contend that the address field 518 is a "master identifier portion," it will be remembered that the Examiner contends that the main memory 120 of Hill is the recited "first slave device" of claim 1. Quite clearly, external memory addresses do not identify a master device.

Status field 520 in the Hill device stores administrative information regarding respective transactions and contains no information relating to a master device identifier. The request type field 522 stores the information relating to the type of transaction which has been requested. Again, the request type field has nothing to do with a master device identifier portion. Therefore, none of the fields 518, 520 or 522 identified by the Examiner have anything to do with identification of the master device, and therefore Hill clearly fails to disclose Applicant's claimed "transaction identifier."

Even Priority block 524 would not correspond to a "priority request portion" as recited in applicants claim 1 since, Hill at column 6, lines 19-21 teaches that a state machine is used to

assign a relative priority for each type of request in the external transaction queue. Column 6, lines 29-31 of Hill discloses that read requests have priority over prefetch requests and prefetch requests have priority over write requests in the "read priority" state of the state machine. Thus, the transaction requests in Hill that are passed via the communication bus 118 from the processor to the main memory 120 can not comprise a "priority request portion," but instead a state machine within the processor 102 determines the relative priorities of the transaction requests. Thus, Hill not only fails to disclose, but actually teaches away from any "transaction identifier" having a priority request portion which is communicated along the common communication bus as set out in Applicant's independent claims.

Moreover, Figure 5 of Hill describes how requests from an internal transaction queue 112 in Figure 1 are processed. These internal transaction requests are not passed across a common communication bus to the slave device (again it will be remembered that the Examiner contends that main memory 120 in Figure 1 of Hill is the "slave device") and instead transaction requests are passed directly by means of an internal communication path within the master device (again the Examiner contends that processor 102 in Hill's Figure 1 is the equivalent of Applicant's claimed "master device").

Furthermore, it is noted that the Hill internal transaction requests are transmitted along communication paths internal to the alleged master device (contended to be Hill processor 102), i.e., from the internal transaction queue 112 to the external transaction queue 114 (again, these are all internal to and part of the processor 102 which the Examiner contends is Applicant's "master device"). There is no indication of what structure comprises the separate

"communication bus providing a plurality of communication paths between said master device, said first slave device and at least one further slave device" as recited in Applicant's claims.

Not only does the Hill reference fail to disclose either the "plurality of communication paths" or the "transaction identifier" set out in Applicant's independent claims, it actually would lead one of ordinary skill in the art away from the claimed combination of elements.

In view of the above, it is clear that the Hill reference not only fails to anticipate the subject matter of Applicant's independent claims (claims 1, 13, 25, 37, 49, 61, 72 and 84) and claims dependent thereon, but would actually lead one of ordinary skill in the art away from such claims and thus fails to support a rejection under 35 USC §103. Accordingly, any further rejection of independent claims 1, 13, 25, 37, 49, 61, 72 and 84 over the Hill reference is respectfully traversed.

Claims 7, 19, 31, 43, 55, 78 and 90 stand rejected under 35 USC §103 as unpatentable over Hill in view of Rosenberg (U.S. Patent 5,450,562). The above comments regarding independent claims 1, 13, 25, 37, 49, 61, 72 and 84 not being anticipated and not being obvious in view of the Hill patent are herein incorporated by reference.

Applicant notes that the Examiner has not contended that the Rosenberg reference teaches either the claimed "plurality of communication paths" or the "transaction identifier" as these are defined in the independent claims. Absent such a contention, then it is clear from the above that these elements and interrelationships set out in Applicant's independent claims are not present in either the Hill or the Rosenberg references and therefore even if these references were combined, they cannot disclose the subject matter of dependent claims 7, 19, 31, 43, 55, 78 and 90. Moreover, as noted above, the Hill reference would actually lead one of ordinary skill in the

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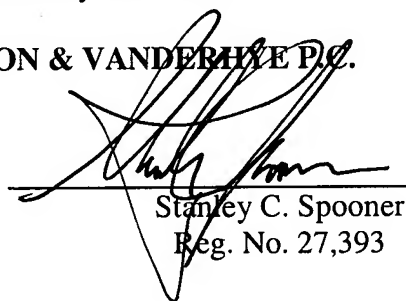
art away from Applicant's independent claim subject matter and therefore there is no reason why one of ordinary skill in the art would combine the Hill and Rosenberg references, even if they did contain portions of disclosures of Applicant's independent claims. Accordingly, any further rejection of dependent claims 7, 19, 31, 43, 55, 78 and 90 is respectfully traversed.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 1-95 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact Applicant's undersigned representative.

Respectfully submitted,

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